



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0713; Project Identifier AD-2021-00180-R]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Inc., Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for Bell Textron Inc., Model 412, 412EP, and 412CF helicopters. This proposed AD was prompted by evaluation results showing flight loads that impact the collective lever fatigue life. This proposed AD would require adding a permanent life penalty for certain collective levers and prohibit installing those collective levers unless the permanent life penalty has been added. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 1-450-437-2862 or 1-800-363-8023; fax 1-

450-433-0272; email productsupport@bellflight.com; or at <https://www.bellflight.com/support/contact-support>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0713; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Haytham Alaidy, Aerospace Engineer, Certification & Program Management Section, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5224; email haytham.alaidy@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0713; Project Identifier AD-2021-00180-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Haytham Alaidy, Aerospace Engineer, Certification & Program Management Section, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5224; email haytham.alaidy@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA proposes to adopt a new AD for Bell Textron Inc., Model 412, 412EP, and 412CF helicopters. This proposed AD was prompted by the results of an evaluation of BLR Aerospace Strake and FastFin system part number (P/N) 412-705-040-101. During the evaluation, additional flight loads were recorded that impact the collective lever fatigue life. Accordingly, this proposed AD would require adding a permanent life penalty for affected collective levers and prohibit installing those collective levers unless the permanent life penalty has been added. This condition, if not addressed, could result in fatigue damage and cracking, failure of the collective lever, and subsequent loss of control of the helicopter.

FAA's Determination

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Related Service Information

The FAA reviewed Bell Helicopter Alert Service Bulletin 412-12-151, Revision A, dated July 8, 2014. This service information specifies procedures for adding a permanent flight hour penalty for collective levers installed or previously installed on helicopters with a Strake and FastFin system P/N 412-705-040-101.

Proposed AD Requirements in this NPRM

This proposed AD would require, depending on the configuration, adding a permanent life penalty of 5,000 hours time-in-service (TIS) or 50% of the total hours TIS accumulated by the collective lever on the component history card or equivalent record for the collective lever. This proposed AD would also prohibit installing an affected collective lever unless the permanent life penalty has been added on its component history card or equivalent record.

Differences Between this Proposed AD and the Service Information

The service information specifies adding the permanent life penalty at the next scheduled inspection, whereas this proposed AD would require that action within 50 hours TIS after the effective date of this AD instead. This proposed AD would require adding the permanent life penalty for helicopters without a Strake and FastFin system P/N 412-705-040-101 installed, but with a collective lever P/N 412-010-408-101 installed, whereas the service information does not specify this.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 96 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Replacing a collective lever would take about 2 work-hours and parts would cost about \$18,237, for an estimated cost of \$18,407 per helicopter and up to \$1,767,072 for the U.S. fleet.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Inc., Model 412, 412EP, and 412CF helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 2700, Flight Control System.

(e) Unsafe Condition

This AD was prompted by evaluation results showing flight loads that impact the collective lever fatigue life. The FAA is issuing this AD to prevent fatigue damage and cracking, which could result in failure of the collective lever and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 50 hours time-in-service (TIS) after the effective date of this AD:

(i) For helicopters with a Strake and FastFin system part number (P/N) 412-705-040-101 installed since initial delivery from the manufacturer, add a permanent penalty of 5,000 hours TIS to the total hours TIS indicated on the component history card or equivalent record for the collective lever P/N 412-010-408-101.

Note 1 to paragraph (g)(1)(i): Bell Helicopter service information identifies helicopters with serial numbers 36570, 36579, 36587, and 36593 through 36602 inclusive, as helicopters originally delivered with a Strake and FastFin system installed.

(ii) For helicopters with a Strake and FastFin system P/N 412-705-040-101 installed after delivery from the manufacturer, add a permanent penalty of 50% of the

total hours TIS accumulated by the collective lever P/N 412-010-408-101 on the component history card or equivalent record for the collective lever P/N 412-010-408-101.

Note 2 to paragraph (g)(1)(ii): The Accomplishment Instructions, part II, paragraph 2., of Bell Helicopter Alert Service Bulletin 412-12-151, Revision A, dated July 8, 2014, provides an example of calculating and adding a permanent penalty of 50%.

(iii) For helicopters without a Strake and FastFin system P/N 412-705-040-101 installed, but with a collective lever P/N 412-010-408-101 installed, add a permanent penalty of 50% of the total hours TIS accumulated by the collective lever on the component history card or equivalent record for the collective lever.

(2) Before further flight, remove from service any collective lever P/N 412-010-408-101 that has reached or exceeded its life limit of 10,000 total hours TIS. Thereafter, remove from service each collective lever P/N 412-010-408-101 on or before reaching its life limit of 10,000 total hours TIS.

(3) As of the effective date of this AD, do not install a new (zero total hours TIS) collective lever P/N 412-010-408-101 unless a permanent penalty of 5,000 hours TIS has been added to the total hours TIS on its component history card or equivalent record.

(4) As of the effective date of this AD, do not install a used collective lever P/N 412-010-408-101 unless a permanent penalty of 50% of the total hours TIS accumulated by the collective lever has been added to the total hours TIS on its component history card or equivalent record.

(h) Special Flight Permits

Special flight permits are prohibited.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, DSCO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-ASW-190-COS@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

For more information about this AD, contact Haytham Alaidy, Aerospace Engineer, Certification & Program Management Section, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5224; email haytham.alaidy@faa.gov.

Issued on August 19, 2021.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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